CHAPTER 2   UNDERSTANDING THE MAT

The Monthly Activity Transmission (MAT) is a front-end subsystem to TRACS. It accepts data submitted from the Industry sites to HUD Headquarters in an electronic form and returns messages from HUD Headquarters to sender sites. Limited edits are performed on the data format before passing the pre-validated data to the TRACS system for further validation and processing. Data which fail the MAT edits cause an error message requesting correction to be sent to the sender. The Industry members are responsible for formatting their automated data to be accepted by the MAT.

The Industry transmits MAT data to TRACS through an electronic mailbox. Transmissions not received - or received garbled - will be resolved by the participant and the mailbox carrier. This document provides the information necessary to understand the MAT requirements, prepare and transmit data, and respond to error messages returned by TRACS and its MAT subsystem.

2.1 MAT Processing Flow

MAT transmissions are received into an electronic mailbox where they are forwarded to the TRACS mainframe and submitted to the MAT subsystem for processing. The MAT subsystem performs formatting and data-type validation on the data and the results of the subsystem's processing will:

1.   Return a file containing error messages (or a transmission confirmation message if there were no errors) to the sender via their electronic mailbox; and

2.   Make the data which has passed the MAT subsystem processing available to TRACS for Tenant and Voucher processing. TRACS will process these data by applying HUD rules defined in Handbook 4350.3.

TRACS and MAT processing occurs overnight. Results of the processing are returned to the sender's electronic mailbox. Users should review the contents of their mailbox daily. Communications with other systems and agencies such as LOCCS and the Social Security Administration, may result in messages being returned by TRACS a few days after the data were originally transmitted by the owner/agent. **Figure 2-1** depicts the Tenant Processing Flow. The Voucher/Payment Processing Flow is similar.
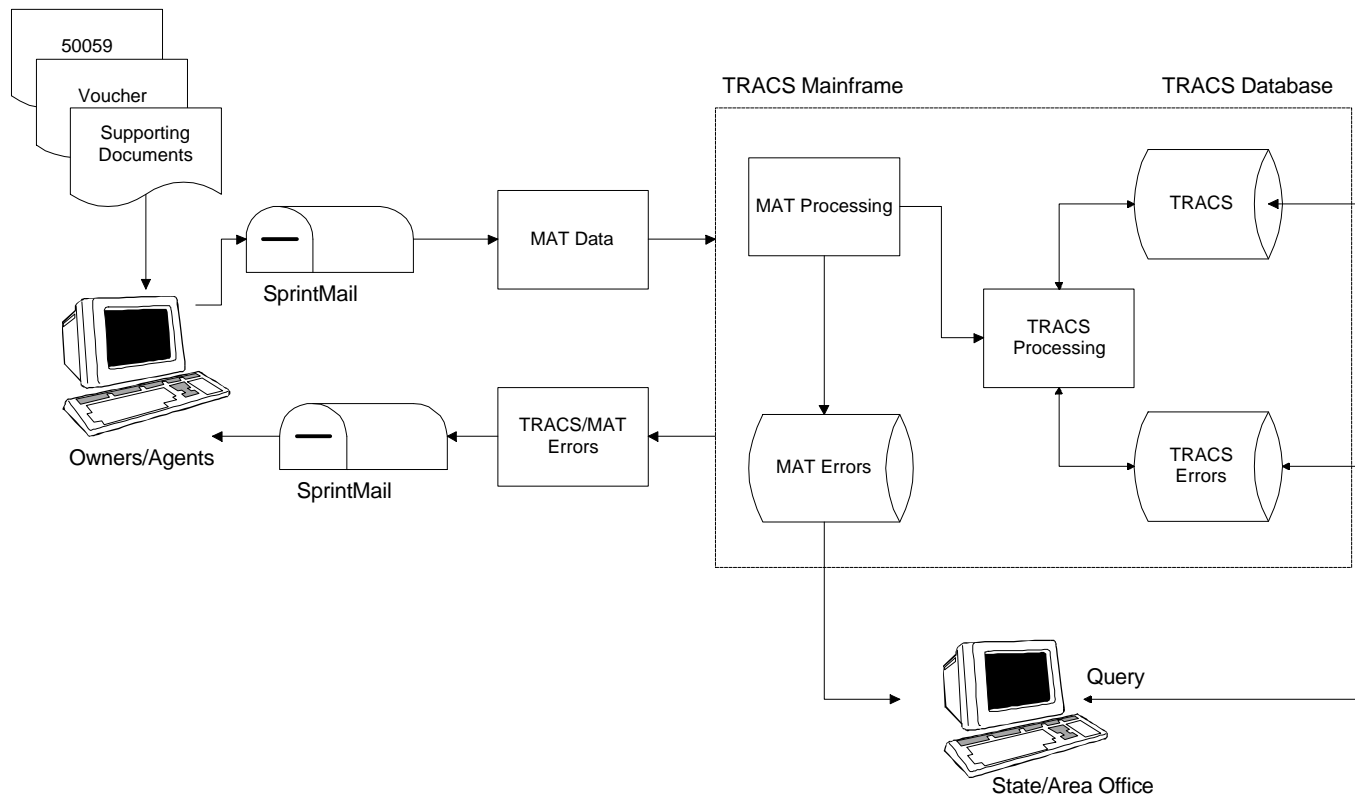
Figure 2-1 Tenant Processing Flow.

2.2 MAT Records General Description

Since the MAT consists of extensive information, the data is organized into various categories or actions. This simplifies using the MAT. These categories are called MAT records. Each transmission begins with a mandatory "header" record, MATHR, which identifies specific transmission information, sender data, and a summary of how many of the other MAT record types are sent in the transmission. Without this header record, the transmitted data would not be linked to any specific sender, date and time, and would be essentially "lost." For this reason, the header record is required; its omission is a *transmission-level* error and causes TRACS to reject the MAT transmission.

The other MAT records correspond to either HUD forms (including form HUD-50059, HUD-52670 and 52670-A), or to some specific certification action such as a move-out, termination, etc., currently submitted on the voucher.

Finally, two special records are used in the error report returned to the sender for correction. The MATER (Tenant) or MATEV (Voucher) identify specific error records within the transmission. MATTR (Tenant) or MATTV (Voucher) are trailer records summarizing the errors for the transmission. By categorizing the data into the specific MAT record types, errors can be easily linked to a specific transmitted transaction, thereby aiding the correction process.

Each MAT transmission will consist of only one header record, regardless of how many projects, contracts, certifications or types of actions are represented in the transmission. Each certification action creates one or more separate MAT records; a single transmission consists of either Tenant or Voucher MAT record types. (See page 2-6 for a sample Tenant MAT transmission and page 3-9 for a sample mixed Batch Type Transmission.)

2.3 MAT Record Types

Table 2-1 and **Table 2-2** describe each type of MAT Tenant and Voucher record and list where the record can be found in this guide for more detailed information.

Table 2-1 MAT Tenant Record Type Table

MAT Tenant System Record Types			
Record Type	Description	Notes	User Guide Page
MATHR	Transmission Header (one):	This record format is shared with the MAT Voucher System.	4-1
MAT10	HUD Form 50059 Certification (multiple) *Section* 1 - 50059 header record (one per MAT10) 2 - Basic record (one per MAT10) 3 - Family record (multiple per MAT10) 4 - Income record (multiple per MAT10) 5 - Asset record (multiple per MAT10) 6 - Worksheet record (one per MAT10)	MAT10 records are subdivided into "sections" to further classify the data on form HUD-50059. An error detected in one of these sections is identified by not only the record (MAT10), but by the specific section as well. Because the MAT10 record is further subdivided into sections, each MAT10 has a dedicated header record of its own to summarize its transmitted data. These header records are in addition to the single MAT header record that defines the entire transmission.	starts on 4-3
MAT15	Address Record (multiple)		4-24
MAT40	Move-out Record (multiple)		4-28
MAT65	Termination Record (multiple)		4-30
MAT70	Unit Transfer or Gross Rent Change Record (multiple)		4-32
MATND	End of Transmission Record (one per transmission)	This record format is shared with the MAT Voucher System.	4-35
MATER	Error Record (multiple)		4-36
MATTR	Error Trailer Record (one per transmission)		4-38

Table 2-2 MAT Voucher Record Type Table

MAT Voucher System Record Types			
Record Type	**Description**	**Notes**	**User Guide Page**
MATHR	Transmission Header	This record format is shared with the MAT Tenant System.	5-1
MAT30	Assistance Payment Header *Section* 1 - Assistance Payment Header Record 2 - Assistance Payment Summary Record 5 - Approved Special Claim 6 - Miscellaneous Accounting Request		5-3
MAT31	Delete Voucher Record		5-11
MATND	End of Transmission Record	This record format is shared with the MAT Tenant System.	5-12
MATEV	Voucher Error Record		5-13
MATTV	Voucher Error Trailer Record		5-14
MATVC	Voucher Transaction Control Record		5-15

2.4 MAT Transmissions

The MAT should be transmitted in ASCII fixed format (not field delimited). The fixed format ASCII file will deliver the MAT data with the field lengths specified in this user's guide. If the field lengths are not adhered to, an error message will be returned and MAT data will be lost as information begins to flow into the next field. The ASCII fixed format requires a line feed and carriage control at the *end of each record*. The user is responsible for ensuring that the field lengths described in this document are adhered to.

The fixed format does not permit NULLS. Blanks (spaces) will be used for empty alphanumeric fields and 0 (zero) will be used for empty numeric fields, unless otherwise instructed by the MAT record detail. Text fields are expected to be left justified and uppercase, and numeric fields are expected to be right justified.

The logical composition of a variety of MAT transmissions can be found below. MAT records do not have to be sorted by project number, contract, or record type. Only the MAT10 requires the sections which comprise that MAT record type be in sequential section order. **Figure 2-2** represents a MAT file from the Industry which contains certifications or recertifications and could be from one or more projects.

Figure 2-2 Sample Representations of MAT Files Transmitted from Industry

Beginning of File
MATHR
MAT10
Section 1 - 50059 Header
Section 2 - Basic Record
Section 3 - Family Record
Section 3 - Family Record
Section 3 - Family Record
Section 4 - Income Record
Section 5 - Asset Record
Section 5 - Asset Record
Section 5 - Asset Record
MAT10
Section 1 - 50059 Header
Section 2 - Basic Record
Section 3 - Family Record
Section 3 - Family Record
Section 4 - Income Record
Section 5 - Asset Record
Section 5 - Asset Record
MAT10
Section 1 - 50059 Header
Section 2 - Basic Record
Section 3 - Family Record
Section 3 - Family Record
Section 4 - Income Record
Section 4 - Income Record
Section 5 - Asset Record
MATND

End of File
(This represents a MAT file from the Industry which contains certifications. It could be from one or more projects)

Beginning of File
MATHR
MAT10
Section 1 - 50059 Header
Section 2 - Basic Record
Section 3 - Family Record
Section 3 - Family Record
Section 3 - Family Record
Section 4 - Income Record
Section 5 - Asset Record
Section 5 - Asset Record
Section 5 - Asset Record
MAT15
MAT70
MAT10
Section 1 - 50059 Header
Section 2 - Basic Record
Section 3 - Family Record
Section 3 - Family Record
Section 4 - Income Record
Section 5 - Asset Record
Section 5 - Asset Record
MAT40
MAT65
MAT10
Section 1 - 50059 Header
Section 2 - Basic Record
Section 3 - Family Record
Section 3 - Family Record
Section 3 - Family Record
Section 4 - Income Record
Section 5 - Income Record
Section 5 - Asset Record
MATND

End of file

(This represents a MAT file from the Industry which contains three (re)certifications [MAT10], an address record [MAT15}, a move out [MAT40]; a unit transfer/gross rent change [MAT70]; and a termination [MAT65]. This file could be from one or more projects.)

2.5 MAT Errors

MAT processing verifies data format and data type of the transmitted data. The MAT generates one error record for each failed edit in each record, and the error records are returned to the sender in one transmission.

In addition, MAT edits result in the following categories of errors:

1. **Field errors**: Data failed numeric, alpha, alphanumeric or date validation.

2. **Mandatory errors**: Data contained spaces, zeros, or incorrect values.

3. **Format errors**: Record counts in the MAT transmission header or MAT10 header records did not equal the MAT calculated counts, or the sequence numbering for the file is out of sequence.

A field error or mandatory error in a record type causes a rejection of that record only. Field errors in a section of a MAT10 record cause a rejection of the entire MAT10 record (including all sections). An error record for the rejected record is returned to the sender, and the sender must resend the entire record again and only the records in error, not the entire file. Records which pass MAT edits are available for tenant or voucher processing. The MAT system will generate MATER (Tenant) or MATEV (Voucher) error records for the error types listed above. Some types of errors will produce specific MAT error message text to be included in the error record. These messages are documented in Appendix C. MATER records and MATEV records will be returned to the sender.

Data which passes MAT format edits, but fails tenant/voucher business rules will cause a tenant/voucher discrepancy message, a fatal error message or an informational message. TRACS error message formats for the Tenant and Voucher systems are defined in Appendix B. TRACS Discrepancy Messages are in Appendix D, TRACS Fatal Error Messages are in Appendix E, and TRACS Informational Messages are in Appendix F.

We recommend that the user attempt to correct all MAT and tenant errors prior to the end of the filing period which is listed in HUD Handbook 4350.3. If corrections are not received prior to the end of the filing period, the corrected transaction(s) must be incorporated into the next month's set of transactions. Users may call the TRACS Hotline for assistance in answering questions about this format or about errors returned.

Table 2-3 presents the error types, rejection expectations, and error messages received for the MAT.

Table 2-3 MAT Error Table

Error Type	Error Description	Rejection Type	Error Message
Field	Failed numeric, alpha, alphanumeric, or date validation	MAT 10 - All sections MAT 30 - All sections	Values: 'N' = Numeric Error 'X' = Not Alphanumeric 'A' = Alpha Error 'D' = Date Error space = not field error
		All others - Record with error	
Mandatory	Data contained spaces, zeros, or incorrect values	MAT 10 - All sections MAT 30 - All sections	Values: 'S' = Space Filled 'Z' = Zero Filled 'V' = Value Error space = not mandatory error
		All others - Record with error	
Record Count	Record counts in header records did not equal the MAT calculated counts and/or the Record Number sequence field was not in sequence.	Entire Transmission	Values: 'E' = Record Count Error 'S' = Sequence Error space = NA (Field number in error is not a record counter)
Other	MATHR record missing	Entire Transmission	Refer to Appendix C.

2.6 MAT Record Format Details

This section describes both the data formats and the data descriptions for a TRACS data transmission; the actual formats and descriptions are located in Chapter 4. The Industry may submit as many transmissions as necessary during a particular month. MAT record types are defined on pages 2-4 and 2-5. The formats are included for sites who choose to include this data in their specifications for automated transmittal.

The MAT transmission must be a flat fixed-format file which contains the record types as described on pages 2-4 and 2-5.

➨ The MATHR must be the first record in the file followed by the other record types in any order.

➨ MAT10 and MAT30 have sections which must be in sequence, but not all sections are required.

➨ A single transmission may consist of any combination of certification record types *OR* any combination of voucher record types, *BUT NOT* a combination of both certification and voucher record types.

Data Format Standards

The following are data format standards which the MAT subsystem requires:

➨ If the Industry's certification software field size is smaller than the MAT field size, the Industry is responsible for space fill, zero fill, and justification as required by the particular field type to the MAT field size.

➨ If the MAT field size is smaller than the field size in the Industry's certification software, the Industry is responsible for appropriate right or left truncation to the MAT field size.

➨ ASCII files require a fixed field format (delimited fields will cause the transmission to be rejected).

➨ Date format is MMDDYYYY, zero fill.

➨ Justification: Text = left justify, space fill; numeric = right justify, zero fill.

➨ Field fill requirements if data is not available:

➲ No NULLS

➲ Numeric fields should be filled with all zeros

➲ Alpha/Alphanumeric fields should be filled with all spaces

➲ Zero or space fill date and time fields

➨ The alphanumeric edit will accept zero through 9, A through Z, and the following special characters:

* + - / , . : ; ( ) = & % # $ " ' < > @ _ \ ! ^ | { } [ ] ? ~ `

Record Details

Chapter 4 contains the actual MAT record formats organized in easy to follow tables. Each MAT record format table includes the following information:

➡ MAT field number
➡ Note column containing mandatory, mandatory on condition, or future field information
➡ Corresponding HUD Form 50059 item, when appropriate
➡ Field name
➡ Start position
➡ Field length
➡ Field type
➡ Definitions and edits

When a 50059 item is represented - such as 26ct - this means item 26, sub-section c, and total. Using this reference, the item can easily be located on the 50059 form.

Fields which will be required in future TRACS releases are identified by a **bold F** placed in front of the field name. These fields may contain either a value or the appropriate fill character.   Some fields have been designated as "filler." This serves as a place holder and should contain the appropriate fill characters, either all spaces or all zeros.